

ANESTHESIA PROVIDERS' PERSPECTIVES REGARDING PARENTAL
PRESENCE DURING ANESTHESIA INDUCTION: A PILOT STUDY

1997

LOCKWOOD

ANESTHESIA PROVIDERS' PERSPECTIVES REGARDING PARENTAL PRESENCE
DURING ANESTHESIA INDUCTION: A PILOT STUDY

by

JEFFREY LOCKWOOD, BA, BSN

THESIS


Presented to the Graduate School of Nursing Faculty of
the Uniformed Services University of the Health Sciences
in Partial Fulfillment
of the Requirements
for the Degree of

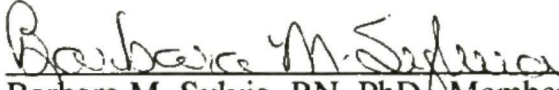
MASTER OF SCIENCE in NURSING
UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
May, 1997

ANESTHESIA PROVIDERS' PERSPECTIVES REGARDING PARENTAL PRESENCE
DURING ANESTHESIA INDUCTION: A PILOT STUDY

Jeffrey Lockwood

APPROVED:

 24 Jul 97
LtCol Regina C. Aune, USAF, NC, PhD., Chair Date

 24 July 97
Barbara M. Sylvia, RN, PhD., Member Date

 30 July 97
John P. McDonough, CRNA, EdD., Member Date

APPROVED:

 5/ aug '97
Faye G. Abdallah, RN, PhD., FAAN, Dean Date

CURRICULUM VITAE

NAME: Jeffrey Lockwood
SSN: 026-50-9187

STATE LICENSURE: Registered Nurse, Oregon #81-046589 exp. 990617

AREA OF CLINICAL SPECIALTY: 66H8A7U

GRADE: O-3

EDUCATION: University of Portland, Portland, Oregon, Bachelor of Science in Nursing, 1993
Portland State University, Portland, Oregon, Bachelor of Arts in Political Science with minor in Foreign Languages, 1989
Rhode Island Community College, Lincoln, Rhode Island, Associate Degree in Nursing, 1977
Officers' Advanced Course completed 1991

WORK EXPERIENCE:

Critical Care Staff Nurse
Kaiser Sunnyside Medical Center, Clackamas, Oregon
1994-1995

Staff Nurse, Post Anesthesia Care Unit
St. Vincent Hospital, Portland, Oregon
1993-1995

Community Health Nurse
Multnomah County Corrections, Portland, Oregon
1993-1995

Officer in Charge, Emergency Department
207th Evacuation Hospital, Operation Desert Shield/Storm
Kuwaiti Theater of Operations
1990-1991

Pediatric Staff Nurse
Oregon Health Sciences University, Doernbecher Children's Hospital, Portland, Oregon
1989-1990

Captain, Army Nurse Corps
United States Army Reserve
396th Combat Support Hospital, Vancouver Barracks, Vancouver, Washington
1987-present

Lieutenant, Army Nurse Corps
Oregon Army National Guard
241st Med Co/Oregon Military Academy
1982-1987

Agency Staff Nurse
American Nursing Resources, Portland, Oregon
1988-1990

Charge Nurse, Post Anesthesia Care Unit
St. Vincent Hospital, Portland, Oregon
1981-1986

Staff Nurse, Emergency Department
Memorial Hospital, Pawtucket, Rhode Island
1978-1981

Charge Nurse, Intensive Care Unit
St. Joseph Hospital, Providence, Rhode Island
1977-1978

AFFILIATIONS AND PROFESSIONAL ORGANIZATION MEMBERSHIP:

American Association of Critical Care Nurses
American Nurses' Association
Oregon Nurses' Association
Reserve Officers' Association

DECORATIONS AND AWARDS:

Army Commendation Medal with 1 OLC
Army Achievement Medal
Army Reserve Components Achievement Medal
Southwest Asia Service Medal with 3 Bronze Service Stars
Kuwait Liberation Medal

DEPARTMENT OF DEFENSE

DISCLAIMER STATEMENT

“This work was supported by the Uniformed Services University of the Health Sciences Protocol No. T-06140. The opinions or assertions contained herein are the private opinions of the author and are not to be construed as official or reflecting the views of the Department of Defense or the Uniformed Services University of the Health Sciences.”

COPYRIGHT STATEMENT

The author hereby certifies that the use of any copyrighted material in the thesis entitled:

**“ANESTHESIA PROVIDERS’ PERSPECTIVES REGARDING PARENTAL
PRESENCE DURING ANESTHESIA INDUCTION”**

beyond brief excerpts is with the permission of the copyright owner, and will save and hold harmless the Uniformed Services University of the Health Sciences from any damage which may arise from such copyright violations.

ABSTRACT

The induction of anesthesia in children can be one of the most stressful parts of the surgical experience. This stress affects the child, the parent, and the surgical team. Children and parents alike are often overwhelmed by the process. The fear and anxiety are further compounded when the parent and child are separated. Several researchers have examined the impact upon parents and children of parental presence during anesthesia induction. Few investigators have examined parental presence's impact on anesthesia providers. Therefore, the purpose of this qualitative study was to examine anesthesia providers' perspectives regarding parental presence during the anesthesia induction of children. A purposive sample of anesthesia providers at a children's hospital in the northeastern United States was queried regarding their perspectives on providing anesthesia care to children in general. They were asked to express their perspectives concerning parental presence during the anesthesia induction of children. Semi-structured, qualitative interviews were conducted of consenting providers. Interviews were audio-taped and field notes were taken. Analysis of interviews was accomplished utilizing manual coding and secondary analysis.

ANESTHESIA PROVIDERS' PERSPECTIVES REGARDING PARENTAL PRESENCE
DURING ANESTHESIA INDUCTION

by

JEFFREY LOCKWOOD, BA, BSN

THESIS

Presented to the Graduate School of Nursing Faculty of
the Uniformed Services University of the Health Sciences
in Partial Fulfillment
of the Requirements
for the Degree of

MASTER OF SCIENCE in NURSING
UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
May, 1997

DEDICATION

To Baby Sarah, I dedicate the creation of this thesis. Her and her father's experience provided the catalyst for the idea that one should never go through a trying experience without someone there to provide reassurance.

Table of Contents

Chapter 1	Aim of the Study.....	1
Chapter 2	Evolution of the Study.....	3
Chapter 3	Method of Inquiry: General.....	9
Chapter 4	Method of Inquiry: Applied.....	11
Chapter 5	Findings.....	14
	Description of the sample.....	14
	Findings of the study.....	14
Chapter 6	Conclusions and Recommendations.....	26
Appendices	cover page.....	32
	Appendix A: Interview	
	Appendix B: Demographics	
	Appendix C: Uniformed Services University IRB approval	
	Appendix D: Interview site study approval	
	Appendix E: Consent form	
References	33

CHAPTER ONE

Aim of the Study

The aim of this study was to ascertain anesthesia providers' perspectives regarding parental presence during anesthesia induction. The work of Dr. John Bowlby (1973) laid the foundation for this study. His study involving post World War II orphaned children in England examined the effects of separating children from their parental surrogates. Bowlby looked at how orphans bonded with nurses and staff members. He found that children of all ages formed strong relationships with specific staff members. When that particular staff member was off duty or if the child was separated from his or her nurse, the resulting anxiety and fear experienced by the child was significant.

Bowlby's examination of the effects of separation from parental surrogates is very pertinent to this study in that children facing surgery and the induction of anesthesia are often separated from their parents. The sequelae from that separation can impede the therapeutic process for both the child and the parent.

Klaus & Kennel (1982) identified the variables in parent-infant bonding. They found that infants are adversely affected when separated from their parents as manifested by loud crying, aversion to feeding, and inability to be consoled. Even a parental surrogate fails to return the infant's vital signs to baseline. Similarly, Rubin (1984) focused on the maternal experience and the effect of maternal separation from the child. Mothers' vital signs upon separation from their children revealed elevated blood pressure as well as elevated heart and ventilatory rates. Further, their stated anxiety levels were elevated and did not return to baseline until they were reunited with their children.

In recognition of the potential traumatic effect of separation from the parent(s), other investigators have examined the effects of premedicating children with anxiolytics so as to decrease preoperative anxiety (Anderson, Exarchos, Lee, & Brown, 1990). Their perspective is that by decreasing the child's anxiety preoperatively, separation from the parent is less traumatic. Further, less medication is needed at induction thus affording a safer course of anesthesia. Gutstein, Johnson, Heard, & Gregory (1992) describe the use of oral ketamine as a preanesthetic medication for children. Ketamine's effect of producing

a state of dissociation where the patient appears awake but is in a trance-like state was found to be beneficial in easing the impact of separation from the parent.

Parental anxiety is often transmitted to the child resulting in increased anxiety for child and parent alike. Bevan, Johnston, Haig, Tousignant, Lucy, Kirnon, Assimes, & Carranza (1990) focused their study on parental anxiety. They utilized assessment tools of parental anxiety to predict children's emotional responses to anesthesia induction. Bru, Carmody, & Donohue-Sword (1993) concluded that parental visitation in the post-anesthesia unit was a means to lessen children's anxiety.

Other researchers have focused specifically on the effects of parental presence during induction. Glazebrook, Lim, Sheard, & Standen (1994) found implications for maternal presence in the anesthetic room based on the child's temperament and reaction to induction of anesthesia. Larosa-Nash, Murphy, Wade, & Clasby (1995) describe the implementation of a parent-present induction program.

Few studies have studied the anesthesia provider with respect to the induction of anesthesia in children and the role, if any, that parental presence may play. By examining the anesthesia providers, information may be obtained regarding their ideas and attitudes as they pertain to having a parent in the room while the child is induced under anesthesia.

The justification for studying this phenomenon lies in the integral part that attitudes play in changes in professional practice. Changes in professional practice and institutional policies can be anxiety producing. The implementation of a parental presence program in the absence of anesthesia provider support would be counterproductive. Conversely, the institutional barrier to parental presence in an atmosphere of provider support could create other barriers to professional self-actualization.

Purposive sampling of anesthesia providers at a children's hospital in the northeastern United States was conducted using qualitative, in-depth interviews. This interview technique is deemed appropriate as it offers the most open, non-judgmental atmosphere in which to elicit ideas and perspectives.

CHAPTER TWO

Evolution of the Study

“Lofland and Lofland (1984) emphasized that qualitative research begins with the investigator’s personal concerns and involves determining what he or she cares about independent of social science. These authors stated:

Starting where you are provides the necessary meaningful linkages between the personal and the emotional, on the one hand, and the stringent intellectual operation to come, on the other hand. Without a foundation in personal sentiment all the rest easily becomes so much ritualistic, hollow cant. (p 10)

The foundation for this study further lies in this author’s experience as Officer in Charge (OIC) of the Emergency Department of the 207th Evacuation Hospital during Operation Desert Storm. As the 207th was set up in a fixed facility, the hospital became a referral point for pediatric casualties. Several civilian casualties arrived from Al-Khafji one night. Among them were a father and his six month old daughter named Sarah. The father was critically wounded from shrapnel which had opened his left chest. Sarah had a disarticulated hip but was otherwise physically uninjured.

As team members were trying to figure how to secure a chest tube in what was left of the father’s chest, he kept crying out, “Where’s Baby Sarah? I must see Baby Sarah!”. At this point I was with Sarah in another area as we were going to reduce her hip. We decided to pause and bring her to her father. We proceeded to lay her on the stretcher next to him where he could touch her. Before reducing Sarah’s hip, we gave her a small amount of Valium and completed the procedure without difficulty.

Sarah’s father stopped crying out for his daughter and became calm knowing that she was safe. He died touching his daughter and knowing that she would be alright. Hence, his ability to be with his daughter served to allay much of his fear and anxiety, even in his own moment of impending death. This phenomenon of anticipatory anxiety is evident in less dramatic settings such as the surgical suite where children and their parents are being prepared for the child’s surgery.

Historically, children have been heavily medicated prior to surgery so as to calm

them. To this day many practitioners maintain this philosophy of premedication. Children present a special challenge to the anesthetist, surgical team members, and the post anesthesia care unit (PACU) nurses as their preoperative fears are masked by medication only to be fully realized upon emergence. Thrashing, crying, and screaming can take their toll on patients and staff alike.

Research studies continue to examine methods to chemically control children's behavior pre and post-operatively (Anderson, Exarchos, Lee, & Brown, 1990). Various medications have been investigated to assess their tranquilizing effects on children (Gutstein, Johnson, Heard, & Gregory, 1992). They found that oral ketamine was the most effective agent as it caused a dissociative reaction accompanied by ketamine's analgesic properties. Chemical alteration of mentation, as manifested by somnolence and confusion, in the absence of psychological preparation merely delays the expression of fear and anxiety.

The foundation for the argument in favor of parental presence at induction (PPI) of anesthesia is supported by the discipline of child development and psychology. Parent-infant bonding begins during pregnancy but is solidified at birth (Klaus & Kennel, 1982; Rubin, 1984). To interfere with this bond in animals is to invite maternal attack. The interference with the bond in humans causes fear, anxiety, and anger for the mother. Parents in health care facilities must frequently be separated from their child for diagnostic, medical, and surgical procedures. These feelings of fear, anxiety, and anger are repressed in the setting of modern hospitals as demonstrated by withdrawal from or anger directed toward staff members. The fear, anxiety, and anger are, nevertheless, present. The child is sensitive to the parent's feelings and may internalize those very same emotions.

The act of separating a parent and child during episodes of extreme stress only amplifies that stress (Bowlby, 1973). Bowlby studied post World War II orphans in England and observed the following phenomena. Children attached themselves to specific nurses as their parental surrogate over time. When other children sought the attention of "their" nurse, they became angry and upset. Further, when "their" nurse left them, they often became hysterical. The traumatic experience of having been separated from their

parents was amplified when faced with separation from the surrogate. Hence, his studies demonstrated that children attach emotionally at an early age and are traumatized when that attachment is threatened.

Infants less than six months of age are not upset by temporary separation from the parent and will usually accept a health team member as a surrogate. However, from six months to age six, children are very upset by parental separation (Steward, 1985). Further, explanations to children are not well understood owing to their stage of cognitive development.

The child's degree of calmness or apprehensiveness is in direct proportion to that of the parent. Thus, preoperative preparation must be focused on the entire family. A thorough explanation of what to expect is invaluable as a means to allay fears.

This foundation of child psychology and family dynamics leads to the practice setting. Many practitioners have emphasized the importance of including the family in all aspects of preparation for the child's surgery (Bru, Carmody, & Donohue-Sword, 1993; Cote, Ryan, Todres, & Goudesouzian, 1993; Petillo & Sanger, 1980). Others have carried this philosophy a step further by advocating the inclusion of parents during anesthesia induction (Glazebrook, Lim, Sheard, & Standen, 1994; Hannalah & Rosales, 1983; Larosa-Nash, Murphy, Wade, & Clasby, 1995). "If possible, allow parents of young children to accompany the child to the induction area and to stay with him during the induction (Steward, 1985, p. 3)." The positive implications for this include the child knowing that the parent is there as unconsciousness envelopes him. Further, the parents are assured that their child has "gone off to sleep" safely and appears to be stable.

Implementation of parental presence is not without its complications. Parents must be well informed of the dynamics of induction. Children are often induced by the use of inhalational agents administered by mask. The intravenous line is often not started until after they are asleep. With mask induction, children experience the excitement phase of Stage II more dramatically than with intravenous induction. This can present itself as involuntary jerking or spasticity which may be misinterpreted by the parent as a seizure. Upon becoming somnolent, the child's eyes may remain open further causing the

possibility of further misinterpretation of the child's status by the parent. These factors make it imperative that the parent be adequately prepared for their child's induction.

The choice of which parent is a candidate to be present during induction requires careful thought. Assessment tools must be utilized so as to screen those who may not be able to cope with the process. The Hospital Fears Inventory (HFI) and Parents' Questionnaire (PQ) are available for this purpose. "Parental anxiety should be assessed preoperatively to allow 'calm' parents to be present at induction if they wish, and 'anxious' parents to be excluded and receive counseling and support (Bevan, Johnston, Haig, Tousignant, Lucy, Kirmon, Assimes, & Carranza, 1990, p. 177)."

The anesthesia provider must have the conviction and commitment to be the gatekeeper for PPI as well as the facilitator. Children who present with a history of difficult inductions and parents whose anxiety is incapacitating are not candidates for PPI. Parents should not be inadvertently encouraged to participate if they are feeling overwhelmed. The astute anesthetist must be alert and sensitive to this situation.

Further barriers to the implementation of a PPI program include the attitudes of the surgical team members. The presence of parents in the induction area or the operating theater creates logistical challenges. The parent must put on a gown and mask. Also, there needs to be a staff member who can escort and counsel parents.

These challenges may be unacceptable to the surgical team at first. This is why it is essential that the establishment of a PPI program involve all members of the team. Unanimity of purpose is a prerequisite. Parents who hear of a PPI program at an institution will be confused when faced with an anesthesia provider who does not allow parental presence.

At Children's Hospital in Boston the PPI program developed from parental input (Larosa-Nash, et. al., 1995). In the present atmosphere of competition in the health care marketplace, institutions need to examine the positive benefits of PPI as they apply to customer satisfaction. Parents and children who laud their experience are the best advertisers for an institution. Conversely, parents who are hurriedly shuffled to a waiting area while their crying or stuporous child is wheeled away to the surgical suite may seek an

institution with a more progressive, family oriented approach.

The philosophy of PPI also has its place in military medicine. During peacetime, military hospitals function much like their civilian counterparts. However, during times of conflict and contingency operations, children often find themselves in the middle of warring factions.

Any parent or child experiences stress preoperatively. The added dimension of surgery in the context of combat provides a living hell for all concerned. If at any life experience the parent and child need to see and touch one another, it is during war.

Obviously, triage considerations must be taken into account at these times. Screaming casualties and hysterical parents in a two table Deployable Medical System (DEPMEDS) surgery box make for a trying situation. That which needs to be kept in mind is a philosophy of PPI. If at all possible, the parent should be with the child.

This practice went a long way toward allaying fears in the multi-lingual, multi-cultural environment during Operation Desert Storm. The universal language of touch and a smile eased many parents and children through a confusing, nightmarish experience. The parents later said through interpreters that having been able to see and touch their children during induction of anesthesia calmed both parent and child. They often did not understand all that was going on around them but to be with one another was a source of strength.

The military setting provides the most poignant environment for a parent to be with his or her child during anesthesia induction. It may seem ironic to add another "body" to the surgical arena when all is in chaos. However, the love and the power of touch between a child and a parent is precisely that which is needed when all else is going to hell. PPI provides that opportunity.

Parental presence during anesthesia induction of children is often of benefit to all concerned. The impact of separating a parent and child before surgery can be deleterious to both. A formal PPI program can systematize the process by which parents are screened and prepared for the experience. The absence of such a program can make for a negative experience for parents and children. Anesthesia providers' attitudes about PPI must be taken into account and all team members must be involved if a program is to succeed.

Finally, despite research which supports PPI, many anesthesia providers remain averse to this type of practice. This treatise examines anesthesia providers' attitudes regarding parental presence during anesthesia induction.

CHAPTER THREE

Method of Inquiry

Method of Inquiry: General

“Qualitative research is a systematic, subjective approach used to describe life experiences and give them meaning whereas quantitative research is a formal, objective, systematic process to describe and test relationships and examine cause and effect interactions among variables” (Burns & Grove, 1993, p.777). The broad scope of the human experience is difficult to describe, let alone to quantify. The qualitative methodology enables a descriptive narrative of that experience while enabling readers to intuitively interpret the findings based on their own experiences.

The standardization and control that is the hallmark of quantitative research is different from qualitative methodology. In the conduct of qualitative research, the researcher is the instrument. “The human instrument allows data to be collected and analyzed in an interactive process. This, of course, merely follows the normal process by which humans solve their daily problems” (Erlandson, Harris, Skipper, & Allen, 1992). “The human instrument is a wonderful data-processing organism. It is more sensitive to various shades of meaning and more able to appropriately respond to them than the most elaborate nonhuman instruments that might be imagined” (Erlandson et. al., 1992, p. 107).

Observations of those being researched are conducted in their own environment as opposed to a laboratory setting. In essence, a holistic approach is taken by the researcher as instrument. The fundamental question asked by the researcher is “What is going on here?” The open-ended nature to the foundation of this type of inquiry is intended to lead the researcher to a more naturalistic, experiential inquiry into the dynamics of that which is being investigated (Erlandson, et. al., 1992).

Qualitative research is descriptive in nature. The objective of the researcher as instrument is to describe that which is occurring. The quantitative criteria regarding sample size are not applicable. Rather, the use of qualitative, in-depth interviews is employed to elicit “pure and unfiltered” responses (Erlandson, et. al., 1992).

The essence of perceptions, attitudes and beliefs do not lend themselves to quantitative analysis. Inviting an individual to state that which they believe may lead to other areas of exploration such as the fundamental foundation of the etiology of those beliefs.

The philosophical underpinnings for this study are grounded in the fact that the reasons for parents not being present at induction at the target institution were not known prior to the conduct of the interviews. Bias is limited by using the qualitative technique of ethnography as members of the subculture were invited to express their perspectives regarding parental presence without preconceptions on the part of the investigator.

CHAPTER FOUR

Method of Inquiry: Applied

In this chapter the specific steps of the inquiry are presented. These include the description of the pilot study, the means by which Internal Review Board was obtained or waived, as appropriate, and the obtaining of consent. The specifics of the interview are presented as well as the analysis of the interviews.

People do not live, work, love, or play in a vacuum. That is to say that their life experiences affect their approaches to life as well as their professional pursuits. Qualitative methodology seeks to embrace and capture the essence of these life forces in a holistic manner.

A pilot study was done wherein three Certified Registered Nurse Anesthetists (CRNA) and two physician anesthesiologists (MDA) were interviewed regarding their perspectives concerning parental presence during induction of anesthesia. Their amused responses to some of the questions led the researcher to inquire as to the source of the amusement. All of those who were amused related that the questions were inappropriate to the practice setting of pediatric anesthesia. Questions were revised in consultation with the thesis chair and pilot subjects were then reinterviewed. This process occurred three times as the interview tool was revised to better reflect the dynamics of the practice of pediatric anesthesia. The interview tool (Appendix A) and demographics (Appendix B) are included.

Internal Review Board (IRB) approval was obtained from the Uniformed Services University (see Appendix C). IRB approval at the target institution was waived by the Chair, Department of Anesthesia as neither patients nor parents were involved in the study. A letter from the Chair, Department of Anesthesia at the target institution is provided in Appendix D. Informants at the target children's hospital were obtained based on the following criteria: staff certified registered nurse anesthetists and anesthesiologists were solicited for their consent and interviewed for this study. Refusal to sign informed consent was the only exclusion criterion.

Written consent was obtained from those agreeing to be interviewed (Appendix E).

Interviewees will be able to obtain the taped interview as well as study conclusions upon request.

Qualitative, semi-structured interviews were conducted of a purposive sample of anesthesia providers regarding their perspectives of parental presence during anesthesia induction. This method is based on ethnography wherein the participant-observer elicits the perceptions and attitudes of key informants concerning this subject.

Interviews were not conducted during the first month of the researcher's rotation at the target institution. The purpose of this delay was to allow the researcher to develop rapport with prospective respondents. The interview process can be intimidating in general. However, when one is being queried as to the rationale for one's own professional practice, a relationship of trust between the researcher and respondent must exist so as to decrease the apprehensiveness of the respondent and to provide a more spontaneous, less threatening environment in which to respond to these substantive issues.

Interviews were conducted at the target institution in various settings. One respondent sat on an operating room table that was not being used as there was a warming blanket on the table. Other respondents retired to the departmental library so as to minimize distractions. However, pagers and beepers still resounded during many of the interviews. Still another respondent was only able to participate in between surgical cases while seated in the busy anesthesia office. Distractions were a factor during the interview process as they impacted on the amount of time that respondents had to participate and perhaps limited more expansive discussions. Also, the researcher was unable to revisit the respondents to confirm their perspectives or to elicit further insights. The interview milieu and the lack of revisitation were a limitation of this study. Future research should endeavor to conduct interviews away from the clinical environment. Also, subjects should be revisited several days after the interview to verify the findings and to elicit any added input.

Interviews were audio taped in an archival format. Field notes were taken during the interviews so as to attempt to capture key phrases and non-verbal communication. Data were collected at the target institution during January-February 1997. Tapes were then transcribed.

Analysis of the interview data was conducted as follows. Tape transcriptions were manually coded. This was done by repeatedly reading the transcripts while highlighting key phrases by respondents. As saturation of responses was noted, these key responses were identified as recurrent to the issue that was queried.

Secondary analysis was done by a doctorally prepared nurse researcher with extensive experience in qualitative research and the critiquing thereof. The researcher was asked to read the principle investigator's field notes and summations of the interviews. "An inquiry is judged in terms of the extent to which its findings can be applied in other contexts or with other respondents. An inquiry is also judged in terms of the degree to which its findings are the product of the focus of its inquiry and not of the biases of the researcher" (Lincoln & Gruba, 1985, p. 290 as cited in Erlandson et. al., 1992, p. 31, 34). These concepts are termed transferability and confirmability respectively which are verified by secondary analysis.

Consultation was ongoing with the USU Thesis Committee regarding analysis of data. The thesis chairperson and other members of the Research Department provided guidance for the coding of transcripts.

CHAPTER FIVE

Findings of the Study

This chapter presents the results of data analysis. This includes a description of the sample and the demographics thereof. Interview questions provide the template for the reporting of themes and recurrent ideas.

Description of the sample

The sample consisted of twelve pediatric anesthesia providers. This included seven Medical Doctors, two Doctors of Osteopathy, one of whom is also an attorney, and three Certified Registered Nurse Anesthetists (CRNA) with varying degrees. Their mean years of age was 39.8 with a range of 30-51. The seven males were all physicians and two of the females were physicians and three were CRNA's. The mean years of anesthesia practice was 9.75 with a standard deviation of 9.628. The range of years of anesthesia practice was 29.5 (0.5-30). All but two of the respondents were parents. The range of the number of children is 0-4 with ages ranging from in utero to 21 years. All respondents were educated in the United States with the exception of one anesthesiologist whose primary medical and anesthesia training was in the United Kingdom.

Findings of the study

In what ways is anesthetic care for children different from adults?

Physiological and anatomical differences were identified by nine respondents.

"Children are not little adults. It takes a lot more precision...a lot less margin for error--least margin for error is with neonates."

"With neonates your major concern is how fragile they are particularly fragile from a hemodynamic standpoint. They are labile."

Airway management of neonates is more difficult than for older children and adults.

"Induction can be a more tenuous time for the infant or neonate. They are prone to laryngospasm."

Pharmacokinetics are altered in neonates. “You must be more precise in your fluid administration and with dosages.”

Growth and development issues were further identified as they apply to psychological and behavioral interaction with children. “Children after six to seven months start to experience anxiety. This is also present in adults but is much worse for children because they cannot express what they are thinking. Older children and teenagers are similar to adults in that they may be less sick but have problems of their own. They may be very scared but since they think that they are in control of everything, they may not express their anxiety.”

Within psychological and developmental concerns, the family as a unit was considered by five respondents. “One aspect is that the parent and child need to be treated as a unit in that the anesthesia plan needs to be explained to both the child and the parent.” “We have to deal with the whole family.”

Separation anxiety based on the child’s developmental stage was also cited as a difference from adults. “Children...may at face value reject the operative experience because of the fearful environment they may be exposed to and the risk or fear of the risk of some kind of bodily injury and separation anxiety that they may undergo.” “Children two years and older experience separation anxiety.”

What types of emotions, thoughts, or physical responses do you have when you care for children...are you anxious, calm?

The anatomic and physiological differences between children and adults were the etiology of the need for increased vigilance with children. This brought with it increased anxiety. “You are always anxious. There’s much less margin for error. You must be certain not to make a mistake.”

The acuity of the child seemed to determine the provider's response in eight cases. "I would say that I was more anxious with a child. My level of anxiety changes not so much on the patient's age, but on the underlying condition."

"There are times when I am more anxious than calm. It depends on the acuity."

Insight from an anesthesia provider who is also a parent, revealed: "When I first began doing pediatrics there was a lot of anxiety. You are always thinking of your own children. But that is how I would want someone to take care of me. I like to take care of children as if it were my own child. That has a calming influence when you do that."

In spite of an understood and appreciated level of anxiety, practitioners espoused the need to project a calm demeanor. "There's always some level of anxiety, however it is important to stay calm."

"You should exhibit an air of calmness and a behavior of confidence to the staff as well as the family."

What motivated you to specialize in pediatric anesthesia?

The love of children was the underlying theme for nine respondents. "My love for working with children and the immense challenge that goes with this field...and there is a tremendous amount of reward that I get, especially with the pediatric population."

"The fact that these children are so innocent and helpless in their own way and I always want to help people and the most unfortunate would be the children."

Six physician anesthesia providers were pediatricians prior to their anesthesia residencies. "I was a pediatrician prior to going into anesthesia so my basic desire has always been to care for children...Children are refreshing in their inability to hide their true feelings, be they positive or negative."

For two pediatricians who became anesthesiologists, there was an identified

buffering effect with the practice of anesthesiology. “I was a pediatrician and really never had any intent of going into anesthesia until I did an ICU (Intensive Care Unit) rotation. I like the physiology, pharmacology and to play with the kids. I also like the fact that I don’t have to establish long term bonds. I was emotionally drained after a series of oncology rotations.”

“I felt it was a pain to deal with parents so I decided to go into critical care then anesthesia.”

For another respondent, pediatrics provided a timely alternative. “I first did a residency in pediatrics before anesthesia because I had a bad experience with adults in one of my rotations. One of my first rotations was in a VA (Veterans’ Administration hospital) on the pulmonary ward. So I ended up basically running away from adult medicine!”

What are some of the behavioral, chemical, and environmental methods that you use to decrease preoperative anxiety on the part of the child and parents?

The first meeting between anesthesia provider, parent, and child provides an opportunity to decrease anxieties. “Behaviorally you need to establish a rapport with both child and parent.”

“The preoperative interview is important.”

“Mostly I engage the child directly during the initial portion of the interview. Demonstrating connection with the child sometimes reassures the parents.”

“One thing that I have tried to work at is to present myself to the parents as a knowledgeable, capable and caring individual...I want them to know that they can trust me.”

Proper preparation and information was also deemed essential to allaying concerns. “The most important way to relieve anxiety, especially for a cardiac patient, is if they have an adequate amount of knowledge. Make sure that someone explains everything in advance.”

“I explain/correct any misconceptions.”

Behaviorally it is further recognized by ten of those interviewed that parental anxieties are readily transmitted to the child. As well, a calm and well informed parent will impart a sense of well being to the child. "I find that if the parents have been adequately prepared and are calm, then the child does fairly well. If the parent is overly anxious or the child is very sick, then things don't go well."

"I talk to parents and children. If the parent is anxious, it will affect the child. If the parent is calm, the child's level of anxiety will go down."

In terms of chemical methods to reduce preoperative anxiety, the protocol at the institution where the interviews were conducted is to administer an oral anxiolytic (Midazolam 0.5mg/Kg up to a maximum dose of 10mg) to all children over the age of one year unless clinically contraindicated. "Use of Midazolam does have the effect of relieving anxiety." One respondent related this story regarding the use of anxiolytics. "I'm pretty liberal with the preoperative sedation, even with the sick hearts. And finally, if someone has a risk of mortality, I make sure that the child is adequately sedated before taking the child from the parents because that is the last image that the parents have of the child. Years ago when I was just starting out I'll never forget taking a screaming kid coming for a complex repair of something and we were less likely to give preoperative sedation and the child unfortunately died on the operating table and the parents' last image was of the kid screaming. I'll never do that again. I think because of the advances made in preoperative sedation being less hemodynamically compromising, you can afford to give them to anybody, no matter how sick they are."

The environment at the institution where the interviews took place is conducive to children from the time one walks in to the lobby. There is a large salt water fish tank with many colorful and exotic species. There are large replicas of turtles on the floor and the walls are brightly colored and adorned with foliage. In the preoperative holding area, there is a play area for children. The televisions have childrens' videos playing such as Barney (much to the chagrin of this researcher).

Six respondents conceded that the operating room (OR) environment could be enhanced for children. “The OR environment could be enhanced with more toys to make it a play like activity, as well as the post recovery environment.” Most providers allow the child to bring a favorite toy with them to the OR. “If the child has a toy, bring that with them. Have their toy bear wear a small mask too.”

Three respondents identified the calming effect that their voices and touch can have on children. “There’s nothing friendly about an OR except you. Your voice is the best you can do. Try to reassure them, calm them, have a soothing manner and tone.”

“Gentle talk, a story, a song at the time of induction is helpful...all are good for anxiety relief.”

“Environmentally you can have nurses or others caress and hold them while the room is getting ready.”

Was parental presence during induction (PPI) part of the practice environment where you trained or previously practiced?

With the exception of one provider, PPI was not a part of the practice environment. “I trained in the UK (United Kingdom) and it is common there. Almost all cases where it was felt parental presence during induction would benefit, it was allowed. Almost no sedation was necessary when parents were there. It’s very reassuring. However, it’s not done as easily as it is said. It needs a special environment. There should always be a person available to the parent in case the parent becomes too anxious.”

If a parent were to be allowed to be present during induction of anesthesia, what difficulties could you foresee regarding induction?

The impact on staffing and logistics were identified as barriers to PPI. “Staff must be assigned to the parent as well as the patient. No matter how educated they are, they may find it causes anxiety. No staff in the OR can stop caring for the patient to care for the parent. An additional person must be available to care for the parent.”

“There’s really no way to tell how the parent will react. You need extra personnel. In the UK there is usually a separate anesthesia induction room.”

Four respondents voiced concern regarding the parent. “Well now you would have two patients in the room...”

“My concerns would be parental behavior. If the parent is anxious will they become more anxious watching the child?”

Further difficulties foreseen include the diversion of the anesthesia provider’s attention during induction. “My concern is that I need to devote my entire attention to the situation at hand.”

The issue of complications during induction was addressed by two. “If you have a problem like laryngospasm, which is not unusual, you are used to dealing with this situation. It’s not as stressful as parents perceive. Now you have to deal with parents also.”

“...if anything happens like laryngospasm, it is too distracting to have the parent there.”

The effect on parents was addressed by four respondents. “Parents say they want to be there but once they see someone getting a venipuncture or something else, it would be upsetting for them. I have friends who allow parents in, some of whom faint, causing more problems.”

“I think it would be very scary for a lot of parents; more parents than not. Stage two anesthesia (the excitement phase during mask induction) can be scary for me too.

Excitement, thrashing, ‘devil eyes’ (wherein a child’s eyes may appear to roll back and the eyelids will not close completely. This appearance has been described by some parents as either the child was not asleep or that the child appeared to be dead)--to a majority of people it would be frightening to see.”

“Can be frightful for the parent too.”

“I’d be afraid that the parents would attend induction because they thought they should be

there when they would rather turn their child over to the professionals and not be there.”

If a parent were allowed to attend their child’s induction, what benefits could you foresee regarding the induction?

The decreasing or elimination of preoperative sedation was identified. “The benefits that have been proposed and people that routinely have parental presence during induction report that there is no need for preoperative sedative. The parent substitutes for the chemical sedative. The child remains calm. The incidence of stormy inductions when individuals tried to study parental presence without chemical sedatives vs. chemical sedatives--both work. The benefit would be to avoid the chemical sedative. Personally I don’t see a great detriment because of the short acting pharmacology of the medications that we use today such as Midazolam.”

“I think for some preoperative sedatives could be avoided.”

“If the parent were properly prepared and calm and if the child were unsedated, possibly they could assist in calming the child...having a familiar face there could help the child to remain calm.”

Two respondents identified a benefit from parental presence in the specific case of epiglottitis where sedation cannot be given and crying exacerbates the situation.

“Previously in a call situation, if you had a child with epiglottitis, you wanted the parent available because you couldn’t sedate them and you wanted them to be as calm as possible. The parent would be able to calm them down by holding the child.”

“One instance I would agree to--if you had a suspected epiglottitis case. In that case you don’t want the child to be agitated or upset. If that means having the parent present, then it would be appropriate.”

The issue of separation anxiety was addressed by another respondent. “I suppose that for the first few minutes you wouldn’t have the separation anxiety that we have.”

Still another when queried about possible benefits replied, "I'm not sure I see any. Honestly. The presumed benefit is to the child thinking that he/she would feel more comfortable if the parents are present. I think that can be countered with the child who thinks they might feel better but actually when they start going to sleep becomes anxious and starts looking for the parents...might be more of a problem than one can anticipate."

The benefit to the family unit was addressed by three. "Benefits would be increased cooperation by the child during the initial portion of induction and there may be increased understanding by the parent regarding anesthetizing the child."

"The major benefit is to a child who can associate the most with a parent. They feel more relaxed and secure. It would make for a more pleasant experience."

"It could reassure parents and provide some emotional support for the child."

What effect, if any, do you see parental presence having on the child/parent?

Five providers pointed out the possible negative effect on children and parents.

"...some families look at this as a burden and feel obligated to follow through and actually have greater anxiety during induction of anesthesia. When a child goes through stages of anesthesia--sedation, excitement, surgical anesthesia--the excitement phase can frequently be confused with agitation or pain, terror, or fear. When the patient becomes induced to a surgical plane of anesthesia, even though the parents are reassured, they can have the misconception that the child has died."

"It would be more stressful on the parents than the child."

"This can be very upsetting to people, including me, to see this vivacious child suddenly limp and unresponsive. That would not necessarily be beneficial to the parent or child."

"If the child has remembrance of the induction, they are going to relate this to the parent. They could think 'how could you allow this to happen to me?'. They could associate negativity with the parents."

"Anxious parents are sending the anxiety to the child. The child is then sensing this anxiety."

Two respondents reidentified the possible reduction of preoperative sedative medication. “It may decrease the need for preoperative medication. The parent may be able to interpret for the child some of the events surrounding the induction that may have been confusing to the child.”

“...if you have a patient with no sedation, the parental presence makes the kid less anxious.”

The recurrent theme of parent as anxiolytic was presented by three respondents. “Hopefully it would have a reassuring and calming effect on the child in that the child is aware that they are being taken to a strange environment to be helped. Having a parent going with the child during this frightening transfer and given the underlying problem which could be catastrophic, I think the child’s calmed demeanor from seeing the parent would enhance the anesthetic.”

The effect on the family in the presence of a calm child “...would have a reciprocal effect on the parent. The parent would feel as if they were taking an active role and were included in the care of the child.”

“It may decrease the need for preoperative medications.”

In what ways would parental presence affect your practice in the Operating Room?

Recurrent themes emerged with respect to the distraction of the anesthesia provider. “I would be extremely distracted. I would have to explain everything which takes my attention away from the patient.”

“I would have to learn to safely divide my attention.”

“It would require more discipline. It’s easier to manage one person.”

“Ancillary personnel would be distracted.”

“I would have to get used to them being there. Attention should be focused on the patient. There would be distractions.”

“I think it would cause a strain...my attention must be on the child.”

Another respondent reiterated the impact on logistics. “Our physical environment would have to be altered to enhance or make it conducive to allow parents to be present. Although the ORs are only seven years old, it was decided that they would not allow parental presence. Those institutions that do allow parental presence have an induction room outside of the OR.”

The presence of student anesthesia providers was addressed by two others. “A big issue for me is to have a parent watching a student while I am supervising. If I do have a parent, I think it would be detrimental to your learning experience. Also, if there is something going wrong, I would find it very difficult to say ‘something has occurred can you step outside?’--that would be very difficult to say.”

“I’m not sure how I would deal with a student scenario; especially if it was a first rotation for the student.”

What are your recommendations with respect to parental presence during anesthesia induction?

Those five who did not recommend PPI stated:

“I don’t think they should be there.”

“If there’s good sedation, you don’t need the parents. Generally I would not recommend PPI in case something goes wrong.”

“Parents should not be present unless there’s a case of epiglottitis.”

“I would not be an advocate of it. I don’t like change all that much.”

“I am against it. I would be concerned with the student/instructor relationship and possible incidences.”

Those three who considered PPI a possibility related:

“If the environment is conducive, it’s a technique that works very well. Colleagues in England think it odd that we don’t have PPI.”

“It’s a viable option if parents are screened and appropriate staff are assigned to the parent.”

“It’s a very effective approach to delay/relieve anxiety and makes it a more relatively pleasant experience for the child. It can’t happen overnight. Changes need to be made first...it needs preparation and thinking. All aspects need to be considered.”

CHAPTER SIX

Conclusions and Recommendations

Discussion

The physiological and anatomical differences between children, especially neonates, and adults were central to the unique problems that can arise upon anesthesia induction of children. Further, children's hemodynamic instability as compared to most adults added to the problem list on induction. In essence, children are not little adults.

Growth and development issues were raised by many respondents as central to the practice of pediatric anesthesia. The onset of separation anxiety at six to seven months of age culminating with distinct separation anxiety at two years of age and older was identified. This serves to reinforce the findings by Bowlby (1973) during his studies of post World War II orphans. He revealed that the trauma that can result from separation from a parent or parental surrogate can have a life long impact. Steward (1985) further reinforces the phenomenon of the impact of parental/child separation wherein "from six months to age six, children are very upset by parental separation".

The family as a unit is central to anesthesia and nursing practice. Bru et. al. (1993) noted how important it is to include the family in all aspects of preparation for the child's surgery. This concept was voiced by respondents as they identified that the parent's emotional state is readily transmitted to the child. A calm parent can often impart that sense of well being to the child. Conversely, an anxious parent will often impart fear and apprehension to the child.

Respondents voiced a seeming dichotomy with respect to their internal emotions during anesthesia induction of children as compared with their external appearance. Many conceded that their anxiety level was increased commensurate with the acuity of the child. However, central to the concession of this anxiety was the need to project a calm and confident demeanor; both to parents and colleagues. Perhaps this is an extension of their recognition that, while calm parents often make for a calm child, calm anesthesia practitioners often have a calming effect on colleagues.

The love of children was central to many respondents' motivation to practice

pediatric anesthesia. A secondary theme emerged, however, as some identified how anesthesia practice enabled them to not have to establish long term bonds. Others were able to deal less with parents as a result of their anesthesia practice. Still another found the motivation to practice pediatric anesthesia through an avoidance of adult medicine based on negative past experiences.

The reduction of preoperative anxiety is accomplished through a variety of means. Most importantly, however, is the universal recognition by respondents and in the literature that preoperative anxiety exists and needs to be addressed. The preoperative interview provides the most important opportunity to decrease anxiety for both the parent and child. The establishment of rapport and trust can be made here.

The interview period's anxiety reduction potential reflected respondents' appreciation of the effect of parental anxiety or calmness on the child. Proper preparation and adequate information often allays many parents' concerns. This then is transmitted to the child. Conversely, an unprepared and anxious parent also transmits this anxiety to the child. Bevan, et. al. (1990) reinforced the respondents' insights by their having quantified the impact of parental anxiety on the emotional responses to induction in children.

Oral anxiolytics administered to children preoperatively have been studied extensively. Gutstein, et. al. (1992) examined oral ketamine while Anderson et. al. (1990) compared chloral hydrate, midazolam, and other agents. The intent of the researchers as well as the respondents appears to have been to utilize a pharmacologic agent which will augment the behavioral interventions so as to decrease preoperative anxiety.

A critical incident was discovered during the interview of one respondent. The use of anxiolytics was paramount for this practitioner after an experience wherein an acutely ill child was separated from his parents to go to surgery. He was very upset and was crying and screaming. The child's death during surgery, combined with the parents' last view of him crying and screaming served to reinforce for this particular practitioner the importance of sedating children adequately as this may be the last view that the parents have of the child.

Familiar objects such as a favorite toy or stuffed animal were very important to

several respondents as a means to reduce childrens' anxiety in an unfamiliar environment. A practice similar to that espoused by Larosa-Nash et. al. (1995) at Boston Childrens' is to dress the bear or other stuffed animal in surgical garb so as to make it a shared experience for bear and child alike.

The employment of a soothing tone of voice and touch is another means by which to decrease preoperative anxiety for many respondents. Klaus & Kennel (1982) replicated previous studies on the quantitative effects of touch and voice. Many physiological parameters such as heart rate, blood pressure, and ventilatory rate were decreased by touch and soothing tones.

Of critical note in this discussion is the fact that only one of the respondents queried had extensive experience with parental presence during induction (PPI). The experience of one practitioner who trained in the United Kingdom gives insight into a setting in which PPI is the norm rather than the exception as is the case at the institution where the interviews took place. This fact reveals possible bias in the sample. If one has not had experience with PPI, then insights into its utility or feasibility are based on conjecture.

The respondent with PPI experience shared many insights consistent with the literature. For example, the respondent noted that anxiolytics were reduced or eliminated with PPI. Hanallah et. al. (1983) had similar findings. Also, he noted that post operative narcotics were reduced in patients whose parents had been present for induction.

Barriers to PPI were consistent between the literature and respondents. The identification by respondents of the impact on traffic flow and staffing reflected the findings by Larosa-Nash et. al. (1995) at Boston Childrens' Hospital. Bru et. al. (1993) conceded that remodeling of the post-anesthesia unit was a prerequisite to facilitating parental visitation.

Respondents provided further insights by noting that another barrier to PPI was that now two potential patients were present. If something untoward were to happen to the parent during induction such as fainting or hysteria, another patient would be present. This potential is the very issue addressed by Bevan et. al. (1990). They identified the importance of screening parents before they were involved in PPI. Further, the authors

presented assessment tools which could be employed for such screening such as the Hospital Fears Inventory (HFI) and the Parents' Questionnaire (PQ).

On a less dramatic note, other respondents voiced that the presence of a parent would serve as a distraction and a diversion of the practitioner's attention from the child. They stipulated that the very tenable nature of children on induction demands their unaltered vigilance and that parental presence would alter that vigilance.

Another barrier to PPI expressed by a respondent was that induction can also be very frightening for the parent. To see a somnolent, albeit moving, child suddenly go limp and unresponsive can be distressing. Further, children's eyes do not always close upon induction which could make the parent think that either the child was not asleep or that they were dead. When induction is further compounded by excitation and spastic movement, the impact on the parent can be further distressing.

Benefits of PPI voiced by many respondents reflected findings in much of the literature. Preoperative sedation medications can often be reduced or eliminated with parental presence (Hanallah et. al. 1983; Glazebrook et. al. 1994). Further benefits of PPI identified by respondents involved cases of children with epiglottitis for whom preoperative sedatives are contraindicated. The presence of a parent during mask induction of these children is often the only way to keep them from crying and exacerbating the epiglottitis.

Less separation anxiety for both parent and child was seen as another benefit of PPI. Again this reflects the findings of Bevan et. al. (1990) as well as Bru et. al. (1993) as they found quantitative and qualitative decreases in reported and observed anxiety in both parents and children when parents were present.

The benefit to the family unit was voiced by some respondents. Their contention was that parental presence may make for a more cooperative child while increasing the understanding of the events for the parent. This is in keeping with Klaus et. al. (1982) as well as Rubin (1984) in their work identifying the synergism in parent-infant bonding.

The potential negative impact of PPI on the child and parent included the idea that the parent may feel burdened by PPI and would feel obligated to participate amidst their own anxieties concerning the induction. This fact reinforces the need for parental screening

as stipulated by Bevan et. al. (1990). Further negative impacts of PPI identified by respondents include the misconception that the child has died upon induction. As was described earlier, the sudden limpness of the child plus unclosed eyes can give the appearance of death. Yet another respondent highlighted a negative effect of PPI from the child's perspective. The presence of a parent during induction could have the child asking "How could you stand there and let them do this to me?"

Positive effects of PPI on the child and parent were reiterated by decreasing preoperative sedation. The parent acts as the anxiolytic. Further, the calming effect on the child could have a reflective calming effect on the parent. This phenomenon of symbiotic calming was presented by Glazebrook et. al. (1994) as well as Hanallah et. al. (1983).

PPI's effect on respondents' practice indicated that many would be extremely distracted by having a parent in the room. Others recognized the need to alter the physical environment to accommodate parent and patient flow. Larosa-Nash et. al. (1995) identified the need to remodel at Boston Children's Hospital. In fact, the ongoing evolution of their PPI program included awaiting reconstruction projects.

Another respondent identified the effect of PPI on practice in the context of a teaching institution. Student practice with parents present may be impeded. Further, the respondent felt that their intervention in a student's less than stellar practice may be hastened by the presence of a parent.

Respondents' recommendations regarding PPI included no parental presence in case something were to go wrong with the child upon induction. Another reiterated concern with the student/instructor relationship in this teaching institution. The feeling was that PPI could impede the learning process; especially for inexperienced students. The respondent who had experience with PPI in the United Kingdom expressed that it worked well but stipulated that the environment must be conducive to it such as a separate induction room and staff support. Still other respondents stated that PPI would be viable provided that parents were properly screened and there was appropriate staffing. Bevan, et. al. (1990) echoed these sentiments by urging the use of the appropriate assessment tools for parents who wish to be present during induction. Again, many of the obstacles that were

identified by Larosa-Nash, et. al. (1995) such as physical layout and staff participation were expressed by respondents.

Limitation of the Study

The interviews were conducted in a facility with no history of PPI. Further, all of the respondents save one had little or no experience with PPI. These factors could have led to altered responses as respondents had to infer what impact PPI would have on them.

The logistical constraints of the interview environment may have led to a less expansive dissertation on the part of the respondents. Distractions were abundant.

Respondents were not revisited after they were interviewed. Revisitation would have afforded them to either verify or refute their responses. Revisitation also allows respondents to expound on their responses as they have had an opportunity to further reflect on the subject.

Recommendations for Further Research

An expanded study to include facilities in which PPI has been practiced for some time as well as those just starting a PPI program might reveal a difference in perspectives on the part of anesthesia providers. The comparisons of these various settings could provide a template for organizations contemplating the implementation of PPI.

A more conducive interview environment is suggested for subsequent studies. An off-site interview may lessen the distracters that were encountered in the practice environment.

Time should be allowed for revisitation of respondents. The complete interview need not be repeated but highlights of responses should be reviewed with them while allowing respondents to elaborate upon previous statements.

Conclusions

The literature and the respondents concede benefits to the child and the family of parental presence during anesthesia induction. However, if PPI is to be implemented, then proper preparation and implementation is critical. Finally, it must be noted that several respondents in this study saw no need for parental presence during anesthesia induction.

APPENDICES COVER PAGE

Appendix A: Interview

Appendix B: Demographics

Appendix C: Uniformed Services University IRB approval

Appendix D: Interview site study approval

Appendix E: Consent form

Appendix A

Interview

Thank you for having agreed to participate in this research project. I am a student nurse anesthetist at the Uniformed Services University. This interview is the integral component of my master's thesis research. The purpose of this interview is to elicit your perspectives regarding parental presence during the anesthesia induction of children.

1. In what ways is caring for children different from caring for adults?
 - a. neonates vs. infants vs. children vs. adults
2. What type of emotions, thoughts, or physical responses do you have when you care for children?
 - a. are you anxious, calm?
3. What motivated you to specialize in pediatric anesthesia?
4. What are some of the methods that you use to decrease preoperative anxiety on the part of the child and parent?
 - a. behavioral
 - b. chemical
 - c. environmental
5. Was parental presence during induction (PPI) a part of the practice environment where you trained or previously practiced?
 - a. If yes, what were your beliefs regarding its implementation?
6. If a parent were allowed to attend their child's induction, what difficulties could you foresee regarding the induction?
 - a. what benefits?
7. What effect, if any, do you see parental presence having on the child?
 - a. ...on the family?
8. In what ways would parental presence effect your practice in the Operating Room?
9. What are your recommendations with respect to parental presence during anesthesia induction?

Appendix B

Demographics

Now that we have completed the interview, please allow me to obtain some information for demographic and statistical purposes.

1. Age:
2. Gender:
3. Highest academic degree:
4. Years of anesthesia practice:
5. Number of children:
 - a. ages



UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

4301 JONES BRIDGE ROAD
BETHESDA, MARYLAND 20814-4799



August 8, 1997

MEMORANDUM FOR CPT JEFFREY LOCKWOOD, GRADUATE SCHOOL OF NURSING

SUBJECT: IRB Approval for Protocol T06140-01 Involving Human Subject Use

The protocol entitled "*Anesthesia Provider Perspectives Regarding Parental Presence During Anesthesia Induction: A Pilot Study*" received an expedited review on 8/1/97 and was **APPROVED** by Edmund G. Howe, M.D., J.D., Chairperson, Institutional Review Board on 8/1/97. This protocol is considered to be not greater than minimal risk in accordance with 32 CFR 219.110 (b)(1) Suppl. 9.

The aim of this study is to ascertain anesthesia providers' perspectives regarding parental presence during anesthesia induction. It involves the use of taped, telephonic interviews of certified registered nurse anesthetists and anesthesiologists. Written informed consent will be obtained from the subjects prior to initiation using approximately 13 subjects from St. Christopher's Hospital in Philadelphia, PA. Interviews use nonsensitive, open-ended questions to elicit the subjects' perspectives on this topic.

The consent form approved for use is attached. It is your responsibility to review and maintain an accurate and accessible file of all consent forms used in this study for each study site. This research study will be reviewed within one year of this date, unless otherwise completed.

Please notify this office of any amendments you wish to propose and of adverse events which may occur in the conduct of this project. If you have any questions regarding human volunteers, please call me at 301-295-3303.

Michael J. McCreery, Ph.D.
LTC, MS, USA
Director, Research Programs and
Executive Secretary, IRB

Attachments:

A/S



TEMPLE UNIVERSITY
School of Medicine



ST. CHRISTOPHER'S
HOSPITAL FOR CHILDREN

DEPARTMENT OF ANESTHESIA AND CRITICAL CARE

DAVID A. LOWE, MD
DIRECTOR

CHRISTINE M. SCHLICHTING, MD
ASSOCIATE DIRECTOR

ROY E. SCHWARTZ, MD
ASSOCIATE DIRECTOR

ERIE AVENUE AT FRONT STREET
PHILADELPHIA, PENNSYLVANIA 19134
(215) 427-5220 (PAGE) 427-5000 (FAX) 427-4339

DEBORAH A. DAVIS, MD
CAROLINE A. PASQUARIELLO, MD
STEPHEN A. STAYER, MD
ALFRED T. DORSEY, MD
MOHAMED A. REHMAN, MD
DINESH K. CHOUDHRY, MD

July 8, 1997

Regina Aune, MD
C/O Jeffrey Lockwood, SRNA
USUHS
20725-K Crystal Hill Circle
Germantown, Maryland 20874

Dear Dr. Aune:

Jeffrey Lockwood asked me to send you this letter to document that I had given him permission in December to conduct thesis interviews with members of my Department. Institutional IRB approval was not necessary since no human subjects other than members of the hospital staff were involved.

Sincerely,

David A. Lowe, MD

Appendix E

Consent Form

Anesthesia Providers' Perspectives Regarding Parental Presence During Anesthesia Induction

I have been asked to participate in a research study investigating anesthesia providers' perspectives regarding parental presence during anesthesia induction. The purpose of this study is to elicit attitudes and beliefs of experienced pediatric anesthesia practitioners as they pertain to parental presence. I have been asked to participate because I am a pediatric anesthesia provider. I am one of approximately 13 participants in this study. This project is under the direction of Captain Jeffrey Lockwood, SRNA, a student in the Nurse Anesthesia program at the Uniformed Services University of the Health Sciences. There is no other sponsorship or funding for this project.

If I choose to participate in this project, I understand that I will be asked nine core questions with additional follow-up questions aimed at clarifying my responses. I understand that this interview will be face-to-face and will be audio recorded for archival purposes. The interview will last approximately 40 minutes. The core questions will focus on my approaches to providing pediatric anesthesia care as well as my attitudes and beliefs regarding parental presence during induction of anesthesia in children. I understand that there are no physical risks from participating in this study, however, I may experience some emotional discomfort due to the fundamental and substantive inquiry into the philosophical foundation of my professional practice. I understand that I may not be personally benefited by this study, however, the study may contribute to a better understanding of the appropriateness, or lack thereof, of parental presence during anesthesia induction which in turn may provide further insight for students and practitioners for whom the pediatric setting is not a specialty.

I understand that the information gathered from me will not be reported to anyone outside the research project in any manner which personally identifies me. My identity will be known only to the researcher; the thesis committee will know only my interview number. A report of the study results will be submitted as a written thesis document and will also be available to me. The researcher (Jeffrey Lockwood) has offered to answer my

questions that I may have about my involvement in the study. All audio taped and transcribed interviews will be maintained by interview number by the researcher. I understand that my participation is completely voluntary and that I may withdraw from the study at any time without penalty. Confidentiality is protected to the best extent provided under law. I understand that a signed statement of informed consent is required of all participants in the study. My signature indicates that I understand and voluntarily agree to the conditions of participation described above, and have received a copy of this form.

DATE

SIGNATURE OF PARTICIPANT

PARTICIPANT'S PRINTED NAME

Using language that is understandable and appropriate, I have discussed this project and the items above with the subject.

DATE

SIGNATURE OF THE INVESTIGATOR

Jeffrey Lockwood
PRINTED NAME

WITNESS SIGNATURE

References

- Anderson, B.J., Exarchos, H., Lee, K., & Brown, T.C. (May, 1990). Oral premedication in children: A comparison of chloral hydrate, diazepam, alprazolam, midazolam and placebo for day surgery. Anaesthesia Intensive Care, 18(2), 185-193.
- Bevan, J.C., Johnston, C., Haig, M.J., Tousignant, G., Lucy, S., Kirnon, V., Assimes, I.K., Carranza, R. (1990). Preoperative parental anxiety predicts behavioural and emotional responses to induction of anaesthesia in children. Canadian Journal of Anaesthesia, 37(2), 177-182.
- Bowlby, J. (1973). Separation anxiety and anger. New York: Basic Books, Inc.
- Bru, G., Carmody, S., Donohue-Sword, B. (Summer, 1993). Parental visitation in the post-anesthesia unit: A means to lessen anxiety. Children's Health Care, 22(3), 217-226.
- Burns, N. & Grove, S.K. (1993). The practice of nursing research: Conduct, critique, and utilization (2nd ed.). Philadelphia: W.B. Saunders Co.
- Cote, C.J., Ryan, J.F., Todres, I.D., & Goudsouzian, N.G. (1993). A practice of anesthesia for infants and children, (2nd ed.). Philadelphia: Saunders.
- Erlandson, D.A., Harris, E.L., Skipper, B.L., Allen, S.D. (1992). Doing naturalistic inquiry: A guide to methods. New York: Sage Publications. 11-19.
- Glazebrook, C.P., Lim, E., Sheard, C.E., & Standen, P.J. (December, 1994). Child temperament and reaction to induction of anaesthesia: Implications for maternal presence in the anaesthetic room. Psychology and Health, 10(1), 55-67.
- Gutstein, H.B., Johnson, K.L., Heard, M.B., & Gregory, G.A. (January, 1992). Oral ketamine preanesthetic medication in children. Anesthesiology, 76(1), 28-33.
- Hanallah, R.S., & Rosales, J.K. (1983). Experience with parents' presence during anaesthesia induction in children. Canadian Anaesthesia Society Journal, 30(3), 286-289.
- Klaus, M.H., & Kennell, J.H. (1982). Parent-infant bonding. St. Louis: C.V. Mosby Company.
- Larosa-Nash, P.A., Murphy, J.M., Wade, L.A., & Clasby, L.L. (March, 1995).

Implementing a parent-present induction program. AORN Journal, 61(3), 526-531.

Lavey, M.D. (1996). The role of nurse practitioners in military deployment. Unpublished master's thesis, Uniformed Services University of the Health Sciences, Bethesda, Maryland.

Lofland, J., & Lofland, L. (1984). Analyzing social settings: A guide to qualitative observation and analysis. Belmont, CA: Wadsworth.

Petrillo, M., & Sanger, S. (1980). Emotional care of hospitalized children: An environmental approach, (2nd ed.). Philadelphia: J.B. Lippincott Company.

Rubin, R. (1984). Maternal identity and the maternal experience. New York: Springer Publishing Company.

Steward, D.J. (1985). Manual of pediatric anesthesia, (2nd ed.). New York: Churchill Livingstone, 3.